

19990118.ba v02_n386.bam.990118 v02_n387.bam.990118

>From ???@??? Mon Jan 18 06:24:17 1999
Message-Id: <199901180952.DAA07606@sco.theporch.com>
Date: Mon, 18 Jan 1999 03:51:37 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2386

BOATANCHORS Digest 2386

Topics covered in this issue include:

- 1) Re: A.C. RADIO BATTERY ELIMINATOR, TRULY ANTIQUE!
by ail0@lehigh.edu (ARTHUR I. LARKY)
- 2) Commo Headset
by "Steve" <scb@mail.internettport.net>
- 3) New articles on AWA Web Page - Bliley Xtal Co history + Maxim's 1915 Station
by John Dilks <oldradio@worldnet.att.net>
- 4) Need 572B tubes
by "Charles Moody" <cmoody@brandons.net>
- 5) Re: Commo Headset
by WF2U <mbendror@villagenet.com>
- 6) Re: Commo Headset
by Al Klase <skywaves@bw.webex.net>
- 7) FT/FS: Morrow MB-560
by Sandy W5TVW <ebjr@worldnet.att.net>
- 8) Natl SPker & Mil Boxes FS
by don merz <71333.144@compuserve.com>
- 9) ??How to measure unknown impedance
by dave metz <metzd@cfw.com>
- 10) 6C21
by Ralph Parker <rparker@istar.ca>
- 11) Re: Commo Headset
by luc dugas <collins2@globetrotter.net>
- 12) FS: 1951 Collins R-389
by "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
- 13) Re: Signal Generator, Cheap???
by Henry van Cleef <vancleef@netcom.com>
- 14) Re: ??How to measure unknown impedance
by Henry van Cleef <vancleef@netcom.com>
- 15) FMLA: Correcting Frank
by mnhopkins@juno.com

Message-Id: <199901180014.TAA77658@ns5-1.CC.Lehigh.EDU>
Date: Sun, 17 Jan 1999 19:14:55 EST
From: ail0@lehigh.edu (ARTHUR I. LARKY)

Subject: Re: A.C. RADIO BATTERY ELIMINATOR, TRULY ANTIQUE!
To: Old Tube Radios <boatanchors@theporch.com>

Early home radios ran on batteries which later were replaced with "battery eliminators". According to a book on patents I read one time, the Philadelphia Battery Company started making battery eliminators and ran into trouble because RCA had a patent on power supplies. So they formed a new company to make radios and sold their battery eliminators at a loss to the new company. The thought that this meant that they would not have to pay any royalties; RCA sued and proved them wrong. The new company was named: PHILCO! I once saw a radio with a Philadelphia Battery Company battery eliminator in it at a flea market but passed it up because I didn't have \$100 to spare. Next time I looked, it was gone!
Art K3HBA

>Got a real antique here, maybe better belongs on a list more focussed on
>pre-1930 radios and equipment...
>
>It's a battery eliminator for radios.
>
>Measures 7.5"H x 5"W x 12"D (very close to ARC-5 size!), in a black
>crackle steel cabinet. Top and bottom covers are removable, friction fit
>(no screws).
>
>Front panel says, "Kuprox A.C. Power Pack, Model 310, 115 VAC, 50-60
>cycles, Manufactured by Kuprox Radio Corporation, Cincinnati, Ohio U.S.A."
>
>Two controls, "Amplifier - increase -- decrease" and "Detector - increase
>-- decrease" which drive strange rheostats, they are 5-turn, knobs screw
>into/out of panel when turned.
>
>Binding posts are labelled: Power Amp 135 volts, C 10-, C 4-, DET+, B
>67-1/2+, B 90+, B- NEG
>
>Inside, three separate compartments separated by steel partitions.
>
>Type 80 tube (not included) as rectifier, is raised up & mounts to a
>surface rather than through a hole.
>
>Input transformer, I measured 25 ohms DC primary resistance, original power
>cord, 5' long, cloth covered (some frayed) and rubber insulation (cracked
>but no bare wire shows) and original AC plug. No, I haven't powered this
>up. I think it'll take extreme care to do so, very old electrolytic caps,
>fragile wiring, etc. It probably deserves a thorough going-over before
>powering up.
>
>Third compartment has two more, smaller, indentical transformers. What
>appears to be an air-wound coil (light in weight so no iron core, 2

>wires, all well wrapped in electrician's cloth tape, measures 4"x2"x0.5".
>Also a porcelain power resistor about 25 watt rating mounted on back of
>rheostats. One fairly large, steel cased, potted, multi-section capacitor,
>number of sections unknown, 7 wires come from it through a grommet in the
>steel case.
>
>Condition appears fair-good. Just a bit of rust on outside of case (stored
>in near-desert conditions), lots of dust, tube socked partially broken but
>appears functional, condition of insulation is fragile but unbroken.
>Appears stock, no discernable mods.
>
>Front panel is aluminum, dark brown with aluminum- and red-colored
>lettering. A few scratches & paint a bit off around rivets but quite good
>condition. Three binding posts (these are pre-bannana type) are missing
>caps (each binding cap says "Burgess"). The two identical knobs (dark
>brown, with fluted, grooved skirt, has long line & arrow on top) appear to
>be stock and are consistent with 1920's styles.
>
>Any advice on this one from the august list?
>
> -John Sehring (3:20 pm Sun, Jan 17, 1999 @ Custer SD USA) UCC WB2EQG
> "Live long and prosper" --John 10:10b
>

Message-Id: <199901180152.TAA21971@loki.internettport.net>
From: "Steve" <scb@mail.internettport.net>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sun, 17 Jan 1999 19:37:21 +0000
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Subject: Commo Headset

Greetings;

Have just acquired an unusual mic/headset combo, may be British.
Internal elements are capsule type. Handmic marked "MICROPHONE
HAND No 7" has a soft rubber "antique telephone" style mouthpiece
and a gripswitch on handle.
No markings on headset, which has usual springy metal headband plus
an additional adjustable canvas strap. Striped cloth covered wire
and unusual wedge shape 5 contact bladed plug. Anyone know what this
is &/or need one? Thanx.

Regards; Steve

Message-ID: <36A2974D.458B@worldnet.att.net>
Date: Sun, 17 Jan 1999 21:07:09 -0500
From: John Dilks <oldradio@worldnet.att.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: New articles on AWA Web Page - Bliley Xtal Co history + Maxim's 1915 Station
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

New articles:

(1) The first 25 years of the Bliley Electric Company by Chuck Bliley, K3NAU -- This is really great!

(2) Hiram Percy Maxim's Ham Radio Station in 1915. From an article in The Radiogram, Vol. 1, No. 2 - June 1915 -- two photos and description by Maxim. Edited for the Web by John Dilks, K2TQN.

Please visit http://www.ggw.org/awa/page_2

--

73' John Dilks, K2TQN

Please visit my OldRadio Museum
<http://www.eht.com/oldradio/museum>

Webmaster for the Antique Wireless Association
<http://www.ggw.org/awa> Click on "Page 2"

--and--

for the New Jersey Antique Radio Club
<http://www.eht.com/oldradio>

-

Message-ID: <000101be4290\$5cd5ec80\$a8a031cc@cmoody>
From: "Charles Moody" <cmoody@brandons.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Need 572B tubes
Date: Sun, 17 Jan 1999 21:12:20 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Fellow Tubelleers: I have just had my second set of 572B transmitting tubes die on me after 4 months operation. Both sets were made in China. I use them in my Heathkit SB-200 linear. I very rarely run more than 400 watts

and should see long life from them. What I would like is to find some NOS 572B's made by an American manufacturer. Has anyone tried the Svetlana transmitting tubes made by the Russians? I'd buy two sets of NOS American tubes (four tubes in all) if the price was reasonable.

Thanks

Charles, N4PI

Message-Id: <4.1.19990117221705.01088850@villagenet.com>

Date: Sun, 17 Jan 1999 22:24:57 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: WF2U <mbendror@villagenet.com>

Subject: Re: Commo Headset

Mime-Version: 1.0

Content-Type: text/plain; charset="iso-8859-1"

Content-Transfer-Encoding: 8bit

Content-Transfer-Encoding: 8bit

At 07:37 PM 1/17/99 +0000, Steve wrote:

>Greetings;

>

>Have just acquired an unusual mic/headset combo, may be British.

>Internal elements are capsule type. Handmic marked "MICROPHONE

>HAND No 7" has a soft rubber "antique telephone" style mouthpiece

>and a gripswitch on handle.

>No markings on headset, which has usual springy metal headband plus

>an additional adjustable canvas strap. Striped cloth covered wire

>and unusual wedge shape 5 contact bladed plug. Anyone know what this

>is &/or need one? Thanx.

>

>Regards; Steve

Hi Steve and Boatanchotites,

This headset is for the British/Canadian "Wireless Set 19". The microphone is dynamic and the headset is high impedance.

BTW the 19 Set is a WW2 vintage radio, but it was used by some outfits until the early 60's.

If you're interested, you can visit the 19 Set webpages at

<http://www.qsl.net/ve3bdb/> and you can read about the history and the features of the set, together with some collectors' activities and operating notes.

73's from†† Meir, WF2U

Collector and user of† vintage amateur and military radio equipment.

Collector and user of vintage horse/cavalry equipment. "Boots and Saddles!"

"Boatanchors forever!"

E-mail address: mbendror@villagenet.com

Message-ID: <36A2A994.C043005F@bw.webex.net>
Date: Sun, 17 Jan 1999 22:25:08 -0500
From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Commo Headset
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

This is the only headset I own that looks like it should plug into a toaster!

WF2U wrote:

> This headset is for the British/Canadian "Wireless Set 19".

--

Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: <http://www.webex.net/~skywaves/home.htm>

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: FT/FS: Morrow MB-560
Message-Id: <19990118032750.OYS23534@LOCALNAME>
Date: Mon, 18 Jan 1999 03:27:50 +0000

Morrow MB-560 mobile transmitter....dirty....missing modulation transformer. Otherwise complete. Looks like it would be a nice rig once cleaned up and restored. Trade for another goodie? Elmac PMR-? receiver or ???. Always looking for 1920's/1930's radio and engineering books, Jones Handbooks etc. Also looking for an 'original' RAK-7/RAL-7 manual.

Will send picture of it if interested. Untested.

73,
Sandy W5TVW

Date: Sun, 17 Jan 1999 22:27:13 -0500
From: don merz <71333.144@compuserve.com>
Subject: Natl SPker & Mil Boxes FS
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199901172230_MC2-6702-904F@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

Vintage Radio Gear Schtuff For Sale

CONTACT: Don Merz, N3RHT: 47 Hazel Drive, Pittsburgh, PA 15228.
412-234-8819 (weekdays, EST or leave a message anytime).
71333.144@compuserve.com

FOR SALE

National speaker. This looks like the NC-303 speaker EXCEPT that the bottom 2/3 is painted black instead of the darker gray that I have seen on NC-300 speakers. So what does it go with? Something else from that era, I assume. With original driver, fiber lining inside cabinet, and cord. Black paint, chrome trim strips on sides and National logo on front are all excellent. Grille cloth has one bad spot about 1" long and 1/8" wide that may be easily touched up with silver paint. Gray paint on top 1/3 of cabinet is just fair with many scuffs and scratches. \$38

Military wooden case labeled "Operating Spare Parts for ATC Aircraft Radio Equipment Serial Number 372 Contract Nos-73238 (Sup) Gross Wt. 9 LBS." This is for the ART-13 (also known as the ATC). Empty. Navy gray paint has scuffs but is very good. Measures 10"Lx10"Wx7"D. With handles and latch that accepts a padlock. \$33

Military metal case labeled "Spare Parts for RBL-5 Radio Equipment Contract NXS-38306 WT/GRO-69 LBS/NET-37LBS." This is for the RBL-5 radio. Empty. Navy gray paint has a goodly number of scratches on top and light rust on bottom. But the box is in excellent shape and the paint is otherwise quite good. With handles and locking latch. Measures 19"Lx15"Wx12"D. \$29

Jensen Radio Mfg. Co. Technical Monograph Number One: Loudspeaker Frequency Response Measurements. 1944. Excellent or near-mint. This paper seems like tame stuff today but must have been a big deal back then. 8-1/2x11 with lots of charts and graphs. \$12 PPD

CONTACT: Don Merz, 47 Hazel Drive, Pittsburgh, PA 15228
412-234-8819 (weekdays, EST)
Internet: 71333.144@compuserve.com

Message-Id: <2.2.32.19990118034858.006ca234@mail.cfw.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 17 Jan 1999 22:48:58 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: dave metz <metzd@cfw.com>
Subject: ??How to measure unknown impedance

Well, here goes the cry for help. I need to replace an audio output transformer on an older Zenith radio that uses a 6F6 audio output tube. From the tube manuals, the load resistance connected as a triode is 4000 ohms. My junk box contains perhaps a dozen output transformers of various physical sizes. How can one measure the primary and secondary impedance of these unknowns with the following limited test equipment: HP200 CD audio oscillator, a RCA WV98C VTVM, and today's hamfest purchase, a HP 4260 Universal bridge? I have spent the last hour looking in many books and can't quite seem to find the answer. Also, some are center tapped for push pull and some are single stage. For the push pull types, how would one measure the impedance considering the center tap.

In advance, thanks for any guidance

73's
dave

Message-Id: <3.0.5.32.19990117195607.007a69f0@istar.ca>
Date: Sun, 17 Jan 1999 19:56:07 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Ralph Parker <rparker@istar.ca>
Subject: 6C21
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I'm sorry, but I didn't pay much attention to the 6C21 discussion ('cause I don't have one), but today I saw a construction article for a "Florida rock crusher" linear amp, 1 kw, using a single 6C21. CQ, April 1962, page 42. I can provide a copy for the interested party.
73, Ralph, VE7XF

Message-ID: <36A298B2.BF900DAA@globetrotter.net>
Date: Sun, 17 Jan 1999 22:13:07 -0400
From: luc dugas <collins2@globetrotter.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Commo Headset
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

concerning non american ba's i have the feeling that if it is not american it doesn't deserve consederation to say the least. i use that headset every day and it the most comfortable i can use. concerning the toaster congratulation for your imagination
luc ve2lgj 73s collector of strange ba's " the more strange it is the more fascinated i am".

Al Klase wrote:

> This is the only headset I own that looks like it should plug into a
> toaster!
>
> WF2U wrote:
>
> > This headset is for the British/Canadian "Wireless Set 19".
>
> --
> Al Klase - N3FRQ
> skywaves@bw.webex.net
> Flemington, NJ 08822
> Web Page: <http://www.webex.net/~skywaves/home.htm>

Message-Id: <3.0.3.32.19990117225213.00943e70@wort-fm.terracom.net>
Date: Sun, 17 Jan 1999 22:52:13 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
Subject: FS: 1951 Collins R-389
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

For Sale: 1951 Collins R-389 long wave receiver

Serial no. 672

This is the second of two R-389s I own. Serial no. 692 has been sold.

Condition: restorable.

The general condition is generally good. The radio has never been dropped, abused, dented, or bashed.

Front panel is in good condition, a few minor nicks and scratches mostly

around rack screw holes. Engraved lettering is slightly dirty. I would clean this panel and leave the original paint. Knobs need repainting. Dial glass missing (small rectangular sheet - easily fabricated). All original knobs, meters, serial number plate...

Top of chassis is dirty, needs thorough cleaning. No tubes. K201 has been replaced by a P&B style 11 pin plug-in relay. This is the motor control relay for the motor tune. An original relay could replace it with no visible modification of the original chassis.

Underside of chassis is cleaner. No tubes, except for the PTO (6BH6 and 5749) and I will supply 2 NIB Raytheon 6082WBs. Wires to the antenna relay have been cut.

The side panels have some significant paint scrapes. The rear panel is dirty and the spring clips for the screwdriver and fluted socket wrench have a light patina of green corrosion (easily buffed off with chrome cleaner). The tools are missing except for the tube pin straighteners. There are two holes for Amphenol military connectors on either side of the IF Out jack. I can supply jacks that are similar to the jacks on the rear of the other R-389 I had. These jacks are not shown in the manual, but the holes are neatly cut and appear to be some military field modification.

The motor tune circuit operates but the gear train needs to be cleaned and lubed. The motorized bandswitch does not operate as the radio is tuned. (The front panel switch only covers two broad ranges 15-500 kHz and 500-1500 kHz. The radio actually tunes in 7 bands.) The window shutter for covering the unused band was missing, but I have a very nice original replacement that purchased from someone I found parting out an R-389.

I am including a set of flat black tube shields that I collected for the radio. They are primarily Collins (marked Collins or COL) but some are EBY and Cinch. These shields have internal heat sinks and are the next best thing to IERC shields.

Please contact me privately about this radio and keep the traffic off the listserver. This radio will be sold to the highest bidder by Friday, Jan. 22nd. I will notify everyone who continues to bid (or requests bid information) of the high bid each night this week. I apologize to anyone who is offended by this method of selling the radio.

I received an opening bid of \$750 on Saturday.

73 Terry O' WB9GVB

From: Henry van Cleef <vancleef@netcom.com>
Message-Id: <199901180513.VAA13035@netcom9.netcom.com>

Subject: Re: Signal Generator, Cheap???

To: Old Tube Radios <boatanchors@theporch.com>

Date: Sun, 17 Jan 1999 22:13:16 -0700 (MST)

Cc: boatanchors@theporch.com

MIME-Version: 1.0

Content-Type: text/plain; charset=US-ASCII

Content-Transfer-Encoding: 7bit

As Barry L. Ornitz discourses

>

> I am surprised that no one is interested in the signal generator I wrote

> about yesterday. I only got one message from John Brewer telling me what a

> good generator it is. He noted it had calibrated output from 0.1 uV to 0.1

> V, internal modulation at 400 and 1000 Hz, stable, metered, etc. Its

> manufacturer, Measurements Corporation is, I think, related to Boonton.

>

It's not that "no one is interested." I would dearly like to have a Measurements 65, but New Jersey is a long distance from Denver. I suspect there are no end of Texans, Oklahomans, Kansans, etc. who would like to have such a generator, but its in New Jersey for pickup only.

And, speaking of pickups, I've got an 86 GMC diesel that is showing signs of mal d'electricque. The electrical dash gauges were all jumpy, so I pulled out the instrument cluster and cleaned all the contacts. But looking at the connector to the temp gauge sending unit, there is a solid coating of corrosion on both the brass sending unit terminal and on the connector. If other underhood connections are like this, I have a lot of corrosion to clean up, and am not too sure how to go about this. But it certainly would explain some of the electrical funnies in the glow plug circuit.

Dunno if the Measurements Generator is better than the high-vaunted military URM-25. But it is a very definite cut above the Hickocks and Supremes and other "radio shop" units. Measurements Corp. was separate from Boonton Radio Corp and was owned by McGraw-Edison in the fifties. They ended up being bought (as was Boonton) by Hewlett-Packard, and, sad to say, their product lines vanished into the dust. Boonton, Measurements, DuMont, and General Radio, in their heyday, were THE first class names in instrumentation, along with Weston meters. I have forgotten who was who in DC stuff in the USA; Guildline of Canada (potentiometers, volt boxes (a term for resistive dividers), standard cells, etc.) were really good stuff, although what came out of Leeds and Northrup wasn't at all shabby.

--

=====

Hank van Cleef

From: Henry van Cleef <vancleef@netcom.com>
Message-Id: <199901180632.WAA17014@netcom9.netcom.com>
Subject: Re: ??How to measure unknown impedance
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sun, 17 Jan 1999 23:32:06 -0700 (MST)
Cc: boatanchors@theporch.com
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit

As dave metz discourses

>
> Well, here goes the cry for help. I need to replace an audio output
> transformer on an older Zenith radio that uses a 6F6 audio output tube. From
> the tube manuals, the load resistance connected as a triode is 4000 ohms. My
> junk box contains perhaps a dozen output transformers of various physical
> sizes. How can one measure the primary and secondary impedance of these
> unknowns with the following limited test equipment: HP200 CD audio
> oscillator, a RCA WV98C VTVM, and today's hamfest purchase, a HP 4260
> Universal bridge? I have spent the last hour looking in many books and
> can't quite seem to find the answer. Also, some are center tapped for push
> pull and some are single stage. For the push pull types, how would one
> measure the impedance considering the center tap.

I am not familiar with the HP 4260, but if it is anything like the GR 650A or 1650A it will measure inductance directly using a Hay bridge and an internal 1Khz oscillator. You can use the 200CD and VTVM to get the information you need as well.

There is a secret in all this. (contributions gratefully accepted for disclosure, but if you look very hard in the right old texts, it's published). That is, the impedance is measured at 1Khz.
 $Z = \Omega * L$ where Ω is $2 * \pi * \text{Frequency (in Hz)}$, L in Henries, and Z in ohms. If I have the decimal point in the right place, One Henry has an impedance of 6280 ohms at 1Khz. This is the inductive reactance component alone. A real life transformer has DC resistance, which assures that the actual impedance is a vector shifted fairly substantially from 90 degrees.

Now, what you want is an inductance ratio, which is a function defined as the square root of the turns ratio. That is, if the speaker is 4 ohms, and the desired primary impedance is 4000 ohms, the ratio is 1000:1, which means a turns ratio of about 31.6:1. To measure turns ratio, energize the primary with a low voltage (hint: use a tube

tester's heater voltage), and measure the ratio between the input and output voltage. This will give you the turns ratio. Then hang a 4 ohm resistor (or whatever speaker impedance value you want to match) on the secondary, and measure the inductance at 1Khz. Something like 600-700 Mh. should be about right. The null may be hard to find on the bridge, with a resistive loading on the output (Q is mighty low), and actually getting the null (I use a VTVM as a null detector) may be a bit tricky.

The output impedance of the 200CD is 600 ohms, and the open circuit voltage set around 22 volts, max. You will probably need to put some resistance in series with the 200CD output. Measure the voltage at the transformer primary with the 200CD at some convenient low frequency (60 Hz). Then crank up the 200CD frequency and see how much the voltage changes. It will go up. You will then need to estimate how the magnitude of the impedance vector between these two points, keeping in mind that the vector sum include the DC resistance of the transformer, the 200CD, and any series resistor you use, and that this is a vector, not a scalar, that you are dealing with.

You can also try finding the resonant peak of the coil with a capacitor across it (a 1 or 2 mike mylar should work). Use some resistance in series with the 200 CD output, and keep in mind that this is NOT the same as a Q-meter circuit, as the generator output impedance is shunting the LC pair. The Q-meter formula is $L \text{ (in microhenries)} = 25330 / F^2 \text{ (in Mhz)} C \text{ (in pf.)}$. You will want to rework the formula (i.e., get the decimal point in the right place) for henries, cycles, and microfarads. I always manage to screw this up when I post, so leave it up to you.

Now, all of the above is very rough (the spec is rough as well) and not good to much more than 1 figure and change. Turns ratio alone is probably accurate enough. To cut through things, a 50C5/50L6 AA5 output transformer should work OK. The push-pull (center-tapped) transformers probably have too high a turns-ratio, end-to-end, but might work if connected center tap to end on the primary side. Also, with a 6F6, you can pentode-connect it and use a 6-8K ohm primary. Bias it with 410 ohms in the cathode. The thing that is critical here is that the load impedance be low enough that the plate does not go below about 75-80 volts at full output. With a 250 volt B supply, you should see about 400 or 425 volts AC on the 6F6 plate, pentode-connected, at full output.

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=====
Hank van Cleef
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From: mnhopkins@juno.com
To: Old Tube Radios <boatanchors@theporch.com>
Date: Mon, 18 Jan 1999 03:36:52 -0600
Subject: FMLA: Correcting Frank
Message-ID: <19990118.034646.-105737.0.MNHopkins@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

It's a familiar drill.

My obsessive pal who plans to take back Five Meters, who always has over \$2,500 cash on him, and who wears dapper double-breasted suits and spats, won't pass up a junk TV on the street.

This time he curbed the Frazer and rolled out as usual, leaving his bodyguard, Christie, in the car. If anyone stops, she just says "MI Esposo," which means "My Husband," and everyone seems happy with that. If not, there is a 13-inch 12 gauge double in her baby bag.

But as he pulled out the plastic CRT shield from the back of the TV to catch parts, some Spanish kids came up, apparently from a masquerade party as they are dressed like Rap singers. The one in front asked how much money Frank was going to give for "grandma's TV" and Frank handed him a card saying, "send an invoice to that address."

The kid read the card, I could see his lips moving, and all of a sudden he says, under his breath, "Oh Chit," and takes off toward the Gooch Brothers "Mexico Lindo" grocery with the rest of the pack behind him. He dropped the card which read "Frank Norris" (not our Frank's real name) and proclaimed him to be with the "INS Special Drug Evidence Section." The real Frank says his WAR friends have all sorts of things like that. He took out the little 5-pin 45 mc SAW filter the Five Meter Liberation Army uses for its secret sign and lapel pin.

That seemed like as good a time as any to me, so I asked him why he said "megacycles" instead of the modern thing. Well, that set him off and he said "you don't trade a descriptive name for a non-descriptive one," and while he thought Hertz was OK (although all those Krauts (were) at your feet or at your throat) he thought it best to leave things alone, name wise.

"And another thing," he said before I could comment on Hertz, "I think you have let the street name thing get completely out of

hand." He told me he had no problem about the importance of the Protestant Reformation and some of his best friends were Methodists, Baptists and just about everything, but he thought naming public streets for Martin Luther was not a good idea -- especially calling him "King" which raised troublesome church/state questions, to his mind.

I don't give thanks often enough, but I did then for the fact that none of his WAR bodyguards were close by. That got into an area where Frank's and their differing viewpoints once almost led to gunplay. So as Frank clipped the wires to the grounds and pried out the big red wire that goes to the CRT, I explained about the streets.

Frank was especially careful not to leave any of the fasteners on the grass by the street, and I thought he might have been thinking carefully about what I told him. He finally said he saw the streets in a different light, but that it still seemed to him they should have waited longer on the holiday since there was not one for Thomas Jefferson, even.

I refused to touch that, but I took the big ferrite core transformer he always saves to use as an RFI filter. As we started back to the car, we saw three Dallas Police cruisers blinking, the Spanish kids up against one of them, and a sergeant talking to Ms Christie. When it was finally all cleaned up and we were back in the Frazer with the TV junk, Christie told us what happened.

She was sitting in the car when these kids came running and, assuming they stole something, she stopped them with the shotgun. She made them assume the position. They did, but hit her with a flood of Spanish which she just answered by saying "Mi Esposo," and making the safety go 'click.'

In a few minutes the Dallas Police car came by and an officer, after getting the story, told her she can't stop people just for running. But about that time his partner got the report back. The three kids had seven outstanding warrants, and two for felonies. Well, that changed everything and nothing happened to Christie. But the officer told Frank, who he takes as the "Esposo," to check the shotgun the "little lady" carries as it might be a "little short." He also wanted to be remembered to my brother, he said. He got the idea Christie was Ross Perot's niece.

So everything worked out and Frank bought us lunch at Raul's, which used to be a Hillbilly dance club. It's easy to find: Just go over by Fair Park to MLK, which used to be Second Ave., and turn

on Malcom X, which used to be Oakland. There is a big sign out front about the buffet. It says "Eat 'till it Hertz."

de ab5L, Michael Hopkins, Box 226841, Dallas, TX 75222,
MNHopkins@JUNO.com Student of Tecraft, ICM, and Six Meters' golden
age, 1956-58. FMLA XXI

End of BOATANCHORS Digest 2386

>From ???@??? Tue Jan 19 03:12:24 1999
Message-Id: <199901182006.0AA11536@sco.theporch.com>
Date: Mon, 18 Jan 1999 14:05:42 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2387

BOATANCHORS Digest 2387

Topics covered in this issue include:

- 1) Re: Commo Headset
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 2) Europe : FS TV7/D tube tester
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 3) Re: Commo Headset
by WF2U <mbendror@villagenet.com>
- 4) FS: Heathkit RX-1/TX-1
by Bill Robbins <billrobb@net-link.net>
- 5) Re: ??How to measure unknown impedance
by jackiv@juno.com (John M Iverson)
- 6) FS: Hallicrafters
by "Walter Fairclough" <wfairclo@netcom.ca>
- 7) Re: Commo Headset
by "Roberta J. Barmore" <rbarmore@indy.net>
- 8) Rare parts needed
by Lenox Carruth <carruth@geo-thermal.com>
- 9) Relay needed
by JIM_ALLEN@HP-Cupertino-om5.om.hp.com
- 10) Re: 6C21 Tubes - radar beauties?
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 11) radar beauties - WW2 :The German side
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 12) ADMINISTRIVIA: Changing Email Addresses

by listown@jackatak.theporch.com (Mail List Owner)

13) Fil. volt testing
by dbrady@us.ibm.com

14) Re: ??How to measure unknown impedance
by jim lockwood <jmlckwd@mindspring.com>

15) TYPE 80 TUBE
by JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)

16) Image ratio in Hallicrafters SX-101A
by "Sven Grandell" <sierra.victor@swipnet.se>

17) AN/SRR 13A
by Haney Howell <howellh@winthrop.edu>

18) Heathkit Manuals
by Bill Robbins <billrobb@net-link.net>

19) FS BC 614 I
by Paul Thekan <Paul.Thekan@eimac.cpii.com>

20) Bits wanted:
by BEN NOCK <G4BXD@compuserve.com>

Message-ID: <001e01be42cf\$9ada16c0\$0300a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: Commo Headset
Date: Mon, 18 Jan 1999 10:57:42 +0100
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I am the odd one out too - with focus on German and Resistance WW2 sets !!!
Hi Hi
73 Rag OZ8RO

>concerning non american ba's i have the feeling that if it is not
>american it doesn't deserve consederation to say the least. i use that
>headset every day and it the most comfortable i can use. concerning the
>toaster congratulation for your imagination
>luc ve2lgj 73s collector of strange ba's " the more strange it is the
>more fascinated i am".
>
>Al Klase wrote:
>
>> This is the only headset I own that looks like it should plug into a
>> toaster!
>>
>> WF2U wrote:

>>
>> > This headset is for the British/Canadian "Wireless Set 19".
>>
>> --
>> Al Klase - N3FRQ
>> skywaves@bw.webex.net
>> Flemington, NJ 08822
>> Web Page: <http://www.webex.net/~skywaves/home.htm>
>
>
>

Message-ID: <002001be42cf\$9fbbc8a0\$0300a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Europe : FS TV7/D tube tester
Date: Mon, 18 Jan 1999 11:08:54 +0100
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

TV7/D tube(valve) tester.

Excellent condition, with manual and cables.

Email me if interested.

73 Rag OZ8R0 in Copenhagen

Message-Id: <4.1.19990118060328.0109c6b0@villagenet.com>
Date: Mon, 18 Jan 1999 06:29:33 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: WF2U <mbendror@villagenet.com>
Subject: Re: Commo Headset
Cc: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

IMHO the multipin quick disconnect, integrated mic./ptt/headset connector is ahead of its times, because a single mic/ptt/headset connector wasn't used in US equipment until the GRC series equipment came out in the early 50's (except the GRC-9 which still didn't have the UG-77 connector...)

I also appreciate and collect military and other communication equipment

from other countries, in addition to US stuff. Sometimes different design philosophies and available materials result in very interesting and sometimes relatively advanced results.

For example: the Wireless Set 19 was the first true HF transceiver ever built (first model in 1939!), where the receiver VFO frequency was converted by mixing it with the BFO frequency to get the transmit frequency which, due to this IF frequency injection, was equal to the receive frequency. The set also had a low power 230 MHz transceiver integrated into it for short distance communications. Now that's a real dual-bander (actually, triple-bander : HF in 2 bands - 2 - 4.5MHZ, 4.5-8MHz and 230 MHZ!). The audio distribution junction boxes by each tank/armored vehicle crew member had flying leads that mated with the headset quick disconnects, so the crew could connect/disconnect the headsets in their positions very quickly.

At 10:25 PM 1/17/99 -0500, Al Klase wrote:

>This is the only headset I own that looks like it should plug into a
>toaster!

>

>WF2U wrote:

>

>> This headset is for the British/Canadian "Wireless Set 19".

>

>--

>Al Klase - N3FRQ

>skywaves@bw.webex.net

>Flemington, NJ 08822

>Web Page: <http://www.webex.net/~skywaves/home.htm>

73's from Meir, WF2U

Collector and user of vintage amateur and military radio equipment.

Collector and user of vintage horse/cavalry equipment. "Boots and Saddles!"

"Boatanchors forever!"

E-mail address: <<mailto:mbendror@villagenet.com>>mbendror@villagenet.com

Webpage: <http://www.qsl.net/wf2u>

Message-Id: <3.0.6.32.19990118080425.007aba90@serv01.net-link.net>

Date: Mon, 18 Jan 1999 08:04:25 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: Bill Robbins <billrobb@net-link.net>
Subject: FS: Heathkit RX-1/TX-1
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have a Heathkit Mohawk Receiver (RX-1) and the Apache Transmitter (TX-1) that I am selling.
They are all original and are unmodified. They need some TLC but very minor, I believe.

I can deliver them to the Chicago hamfest this coming weekend or make a stop from Michigan. I prefer not to ship them.

I have had the receiver on and its works fine. I am a wimp with high voltage so I have not played with the transmitter. Cosmetically, the pair matches with the knobs, etc.

I will not seperate them. \$325 for the pair.

E-mail for details.

Bill

HEATHKIT COLLECTOR

WA8CDU formally WN8CDU

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Mon, 18 Jan 1999 07:08:11 CST
Subject: Re: ??How to measure unknown impedance
Message-ID: <19990118.073316.10334.0.jackiv@juno.com>
From: jackiv@juno.com (John M Iverson)

Hi Dave, I think that if you look at the socket connections on the old zenith you will find that it is pentode connected. if you will give me the set model no. or the serial number on the colored paper tag on the chassis (color is important) i will furnish the output data from my Zenith files.

Jack Iverson K0EWU jackiv@juno.com
ARRL, IEEE LM, RCA, AMI, ARCI, QCWA

On Sun, 17 Jan 1999 22:48:58 -0500 dave metz <metzd@cfw.com> writes:
>Well, here goes the cry for help. I need to replace an audio output
>transformer on an older Zenith radio that uses a 6F6 audio output
>tube. From
>the tube manuals, the load resistance connected as a triode is 4000

>ohms. My
>junk box contains perhaps a dozen output transformers of various
>physical
>sizes. How can one measure the primary and secondary impedance of
>these
>unknowns with the following limited test equipment: HP200 CD audio
>oscillator, a RCA WV98C VTVM, and today's hamfest purchase, a HP 4260
>Universal bridge? I have spent the last hour looking in many books
>and
>can't quite seem to find the answer. Also, some are center tapped for
>push
>pull and some are single stage. For the push pull types, how would one
>measure the impedance considering the center tap.
>
>In advance, thanks for any guidance
>
>73's
>dave
>
>

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Message-ID: <009201be42ea\$eb097a80\$5b5ab5cf@netcom.ca>
From: "Walter Fairclough" <wfairclo@netcom.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS: Hallicrafters
Date: Mon, 18 Jan 1999 09:00:31 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have the following Hallicrafters receivers for sale:

SX-71. All caps, resistors and tubes that required replacing, have been.
Complete realignment done. Cabinet refinished (computer color matched).
Everything original. Looks great and plays great. Asking \$175.00 (US) OBO
plus packing/shipping.

SX-101A MKIII (this one is 80-10m with calibration for 2 & 6M) that is near
collector quality (scratch on side of cabinet can be easily air brushed)
with original Hallicrafters box. Asking \$350.00 (US) OBO plus
packing/shipping.

Walter - VE3EN
wfairclo@netcom.ca

Date: Mon, 18 Jan 1999 10:03:15 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Commo Headset
Message-ID: <Pine.SUN.3.96.990118092821.22538A-100000@indy2>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

I suspect it is more the great rarity of non-US BAs (in the US) that causes them to not get mentioned much on the list; certainly the UK Racal receivers were among the best tube HF sets ever made, and have received some mention here. (As has Jerry Proc's radio room aboard Haida, with racks of grand Marconi sets).

From the Allied side, I have seen mention of fine British, Canadian, and Australia-made WW II comms gear on the list; but even the venerable AR-88 is uncommon in the States! German (and other Axis) gear is *extremely* rare here--which is one reason why Ragnar O. is such a treasure on the list: not only is he interested in it and knowledgeable about it, he lives a lot closer to the original source! JA-built WW II stuff seems rare even in the country of origin; there was at least one JA ham on the list but not for long (it's a difficult translation even with the best will on both sides, and perhaps I'd best leave it with that).

I have a great weakness for British technology, in part due to good experiences with UK-made automobiles, but cost and distance limit my hands-on appreciation to a few telegraph keys and modern kits. The rest of Europe and beyond, well, plenty of good stuff was (and is) made, but it doesn't show up a hamfests in my neighborhood. (A pity--there are, for instance, some very fine USSR-built HF comms receivers that it would be delightful to try out; and my poor French gets me just far enough on the web-pages for France's REF to realize it's an excellent national ham organization).

Folks do what they can with what they've got. There is, to be sure, a certain amount of nostalgia for ham gear that was US-built on the part of US citizens here...but I don't know that makes us so different to BA-fans in (to take an example I'm at least faintly familiar with) the UK: both countries still manage to support one fairly big maker of civilian HF comms gear (Lowe and Ten-Tec) but the main action is gone and BA hams speak of The Good Old Days. Nor are those two examples probably much different to any of the other major industrialized powers (except Japan).

This e-mail list has more W/K/A/N prefixes than any other, so one hears more about Collins than KW Electronics, but that should not be taken as chauvinism. Many of us are *fascinated* by gear very different from the same things we've been seeing at hamfests for the last 20-plus years!

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Message-ID: <36A351DE.FBA7D961@geo-thermal.com>
Date: Mon, 18 Jan 1999 09:23:10 -0600
From: Lenox Carruth <carruth@geo-thermal.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Rare parts needed
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

-----Original Message-----
Greetings from sunny and warm Texas:

I have forwarded the following letter from Ray Gilbert requesting a couple of rare items. This is a great opportunity to help preserve some old radio gear in operating condition and in its original configuration. I am hoping that we can help him find this stuff. They do great work up there. Last time I swapped stuff with Ray, he was working on a B-17 and I was installing original radios in a R4D. Please reply directly to Ray (NOT to me) if you have either of the items that he needs or have any idea where he might find them. Thanks!

From: Ray Gilbert [SMTP:k7vqf@olympus.net]
Sent: Sunday, January 17, 1999 3:24 PM
To: Terry Muncey
Subject: Needed radio equipment

We are restoring an old Boeing Model B-307 passenger plane. It was the first pressurized transport and came out in 1939. What we need badly is a manual crank reel for the trailing wire antenna. That and an RCA AVA-17A loop antenna. That is a manually operated loop. It had a shaft that extended down through the top of the fuselage where the Radio

Officer sat. It had a vernier dial that he could turn to operate the loop.

If you have any idea who might have this gear (or if you do) please let me know. I have trading material or cash.

The plane is being restored for the Smithsonian by The Boeing Company.
It will be in flying condition and the old radio equipment will be in operating condition.

Ray Gilbert

--

Lenox

Lenox Carruth Dallas, TX carruth@geo-thermal.com
Collector of WW-II Communications Equipment and Memorabilia

Wanted: TCS-14 Transmitter, TBX, BD-71, Sextant

From: JIM_ALLEN@HP-Cupertino-om5.om.hp.com
Date: Mon, 18 Jan 1999 07:39:41 -0800
Message-Id: <H000030e0c47fcb2@MHS>
Subject: Relay needed
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: ALLEN_JIM/HP-Cupertino_om5@cupom2.cup.hp.com
Content-Type: text/plain; charset=US-ASCII; name="cc:Mail"
Content-Disposition: inline; filename="cc:Mail"
Content-Transfer-Encoding: 7bit

I'm in need of the transmit/receive relay from the power supply/modulator unit of a Clegg Thor 6 Meter transceiver. It might be used in other Clegg units as well. A part number and/or possible commercial source would also help.

Thanks,

Jim

NU6AM

Date: Mon, 18 Jan 1999 11:01:33 -0500
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
Message-Id: <199901181601.LAA06027@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: 6C21 Tubes - radar beauties?

] To quote Tube Lore, 6C21...
] Pulser in AN/MPS-9,AN/MPQ-18,and SCR-584. BIG TUBE! 73 jack

Shame on me for not registering on SCR584 - object of Nova's "Eyes of War"

Found modulator & PS racks assy.s to a very late one here In GA state surplus. Arranged for Hist. Elect. Museum Balto to get both fm successful scrapyard bidder.

HEMUS gotr into a swit 'cause they thot they'd get a rare, compact "invasion of Japan prepped" compact 584 antenna. No such luck - these're apparrantly all dead & buried.

Looked into mod. & saw at least one of those HUGE TUBES.

And that was only 2 yrs. back. Memory goin' fast

Closing note is I later found it was a from new 584 given to Ga Tech ~1968 for study on how to defeat it since Chinese had lots in operation they'd assembled fm US surplus dealers!!!

Story fm reliable source... & one guy on BA says all u need to do is shine a 10cm beam modulated @ polarizer spin-freq. & the 584 goes blotto.

Everybody should know that.

Ask re a big tube & see what happens???

M

Message-ID: <007d01be4300\$84bd1dc0\$0300a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: <boatanchors@theporch.com>
Subject: radar beauties - WW2 :The German side

Date: Mon, 18 Jan 1999 17:34:22 +0100
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I have some of the German W.W.2 radar tubes collecting dust, including CRTs.

Have no radar equipment , so if somebody is interested in some of this
please drop me a line.

I also have a British subunit with a STC 495-LVA on. It is a 7 pin thing
but the glaspart coming out of it is broken. Should I just dump it or what
?

73 Rag OZ8RO

Message-Id: <199901181715.LAA06441@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Changing Email Addresses
Date: Mon, 18 Jan 99 11:15:01 CST

Gang-

This periodic post is intended to help subscribers whose email
address has changed, preventing posting or receipt of the list.

If you change ISP (InterNet Service Provider), simply send me an
email advising the change, and I will do my best to implement the
change quickly.

For those unfortunates, whose ISP has made a change without advising
their customers of the potential impact of that change on
subscribers to email lists like the boatanchors, where one must
be a subscriber to post to the list, try to follow along...

Under some circumstances, the changes to your email address are
"transparent" to you, but prevent posting. I get error notification
for these kinds of problems, and I try to work them out. However,
I may miss one, and on this end, the process is anything BUT
automatic.

You have a bigger stick than I do. You and your ISP have the primary responsibility to repair the problems caused by the change at the ISP. I have zero leverage with your ISP, and you have great leverage.

Most ISP maintain a customer service department to help with problems like these. This should be your first line of support for email problems. I am happy to assist and consult, but try to understand that when your ISP makes a change to their email handler, and that change prevents you from posting to the boatanchors list, I can help, but resolving this problem is your responsibility, working with your ISP. I am but a volunteer, contributing my time to administer the list.

Thank you for your attention.

--

73

Jack, W4KH/Mobile - - - BoatAnchor Mailing List Archiver/Owner - - -
listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
"Il n'y a que les idiots qui ne changent jamais d'idee"
Mon Jan 18 11:15:01 CST 1999

From: dbrady@us.ibm.com
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <872566FD.00600D0C.00@d53mta04h.boulder.ibm.com>
Date: Mon, 18 Jan 1999 10:29:05 -0700
Subject: Fil. volt testing
Mime-Version: 1.0
Content-type: text/plain; charset=us-ascii
Content-Disposition: inline

In past discussions of transmit tube filament voltage, experienced broadcast engineers told about reducing filament voltage to the point just before power output began to fall, and then leaving the voltage there, to get extended life from the tube. Others have given the numbers on reduced filament life caused by excessive voltage.

This past weekend, I tried experimenting with my two amps. They are 1) pair of HK-54's on 40M and 2) pair of 808's on 80M. Both amps are class-C, push-pull, and both tube types use thoriated tungsten filaments. I run the amps lightly loaded i.e. less plate current than the manufacturer's rated amount. Two reasons for this, 1) power supplies don't have the "oomph" to hold the 2,000v under load and 2) less loading gives higher tank Q for better harmonic reduction. The HK-54 is rated

for 130MA@2,000v and the 808 is rated for 150MA
@2,000v. I run both amps at about 100-to-120MA.

I found the 808's held output from 7.5v (spec) down to 5.5v, and the HK-54's held from 5.0v (spec) down to 4.0v. This surprised me that I could drop the voltage about 25% and still keep the same RF output. I discussed this with John, W7ZFB, and he said I only need enough filament power to provide the plate+grid current for the load I am running the tubes at. This certainly makes sense, as proven by the broadcaster's experience as well as my bit of testing. It also appears the tube makers put lots of extra filament power into the tubes so they would provide maximum output with plenty of reserve. I have filament run time meters, and only put about 300 hrs a year on each of my amps.

Question: is there anything going on with the chemistry of the filaments that is/could be harmful by matching the filament power to the exact "needs" of the plate and grid (with maybe 5% extra as a safety factor)?? It would seem that I could gradually increase the filament voltage as the tube ages and emission drops, and keep the output at the present levels, and get longer tube life. Also, as a ham, I only run the amps for a short period at a time, and not on a daily basis, so there's lots of turning them on-and-off.

Thanks,
Dennis W5FRS

Message-Id: <3.0.32.19990118093139.006f9974@pop.mindspring.com>
Date: Mon, 18 Jan 1999 09:34:16 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: jim lockwood <jmlckwd@mindspring.com>
Subject: Re: ??How to measure unknown impedance
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 10:48 PM 1/17/99 -0500, dave metz wrote:

>Well, here goes the cry for help. I need to replace an audio output
>transformer on an older Zenith radio that uses a 6F6 audio output tube.

>How can one measure the primary and secondary impedance of these
>unknowns with the following limited test equipment: HP200 CD audio

>oscillator, a RCA WV98C VTVM, and today's hamfest purchase, a HP 4260
>Universal bridge?

Dave and the rest of the Gang,

My first reaction is that a very pragmatic approach may be the most expedient way to get a new transformer in the old Zenith: Hook 'em up and try 'em.

A way to do that would be to clip lead the transformers to your 6F6, drive the audio stage with your HP200, and use the WV98C to measure the AC voltage at your speaker terminals. Keeping a constant input signal from the HP200, try various transformer and tap combination and choose the one that results in the greatest reading on the WV98C.

Alternatively, and this is what I did when I had to replace the output transformer in my SX-101A, use a common 70 V line-output transformer. Again, using the signal generator and VTVM, use the tap combination that gives you the greatest signal at the speaker. Most likely this will be the .5 Watt or 1 Watt tap on the primary, and the secondary tap that matches the speaker impedance.

73,

Jim - K4CCF

(formerly KM6NK, WA4K00, WN4K00)

Looking for original QSL cards from K4CCF

<http://www.mindspring.com/~johnmb/radiorm1.htm>

MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit
Date: Mon, 18 Jan 1999 12:33:02 -0500 (EST)
Subject: TYPE 80 TUBE
To: Old Tube Radios <boatanchors@theporch.com>
From: JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)
Message-ID: <9901181233.aa27565@pcusa01.ecunet.org>

To: boatanchors@theporch.com

Someone has mentioned that the type 80 tube may have had the longest manufacturing life of any tube.

Anybody know when it was first introduced & how long manufactured?

(Tnx to all who answered my query on an ancient version of an 80.)

-John Sehring (9:37 am Mon, Jan 18, 1999 @ Custer SD USA) UCC WB2EQG
"Live long and prosper" --John 10:10b

From: "Sven Grandell" <sierra.victor@swipnet.se>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Image ratio in Hallicrafters SX-101A
Date: Mon, 18 Jan 1999 18:54:19 +0100
Message-ID: <01be430b\$925ca940\$LocalHost@glp804f>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----=_NextPart_000_00AA_01BE4313.F4211140"
Content-Transfer-Encoding: 8bit

Det h r  r ett multipart-meddelande i MIME-format.

-----=_NextPart_000_00AA_01BE4313.F4211140
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Has anyone heard about bad image ratio in SX-101A?

Yesterday I had my 101 on the bench and out of the box for alignment.
In 14 MHz-band I heard several AM-stations from the 17 MHz BC-band.
And that with my 7 MHz-dipole.

Perhaps the image ratio is better with the receiver in the shielded box =
but I am
not sure. Any comments would be appreciated.

73,
Sven, SM3SV

-----=_NextPart_000_00AA_01BE4313.F4211140
Content-Type: text/html;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

<!DOCTYPE HTML PUBLIC "-//W3C//DTD W3 HTML//EN">
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<META content=3Dtext/html; charset=3Diso-8859-1 =

http-equiv=Content-Type>
<META content="MSHTML 4.71.1712.3" name=GENERATOR>
</HEAD>
<BODY bgColor=#ffffff>
<DIV>Has anyone heard about =
bad image=20
ratio in SX-101A?</DIV>
<DIV> </DIV>
<DIV>Yesterday I had my 101 =
on the bench=20
and out of the box for alignment.</DIV>
<DIV>In 14 MHz-band I heard =
several=20
AM-stations from the 17 MHz BC-band.</DIV>
<DIV>And that with my 7=20
MHz-dipole.</DIV>
<DIV> </DIV>
<DIV>Perhaps the image ratio =
is better=20
with the receiver in the shielded box but I am</DIV>
<DIV>not sure. Any comments =
would be=20
appreciated.</DIV>
<DIV> </DIV>
<DIV>73,</DIV>
<DIV>Sven,=20
SM3SV</DIV></BODY></HTML>

-----=_NextPart_000_00AA_01BE4313.F4211140--

Date: Mon, 18 Jan 1999 14:35:08 -0400
From: Haney Howell <howellh@winthrop.edu>
Subject: AN/SRR 13A
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <36A37EC1.5768BB69@winthrop.edu>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Just got my hands on an AN/SSR 13A receiver. Does anyone have a manual or can point me in the right direction?

Haney <howellh@winthrop.edu> k2xn

Message-Id: <3.0.6.32.19990118134517.007a95e0@serv01.net-link.net>
Date: Mon, 18 Jan 1999 13:45:17 -0500

To: Old Tube Radios <boatanchors@theporch.com>
From: Bill Robbins <billrobb@net-link.net>
Subject: Heathkit Manuals
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have listed the last of my Heathkit manuals on ebay. They should go very reasonably.

Good luck

Bill

Message-Id: <199901181955.LAA30330@scottie.eimac.cpii.com>
Date: Mon, 18 Jan 1999 11:56:56 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>
Subject: FS BC 614 I
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

My friend in Bill in Indiana has the above mentioned speech amplifier for the post war BC 610 I xmtr. He wants to sell it and said it was in nice condition. If you're interested, please call Bill at 812 882 2437 between the hours of 6 pm - 9pm EST.

I know nothing more about the 614 so please contact Bill not me....goodluck.

Paul

Date: Mon, 18 Jan 1999 15:04:44 -0500
From: BEN NOCK <G4BXD@compuserve.com>
Subject: Bits wanted:
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199901181504_MC2-6715-5901@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline

I am looking for:

ART-13
BC-375
BC-191

No9 set tx

cheers, Ben G4BXD

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*****
*** 73 from Radio G4BXD Worcestershire, U.K.      *
** E-mail to: G4BXD@compuserve.com                 *
***                                                ***
** http://ourworld.compuserve.com/homepages/G4BXD *
*****
West Mercia C Award, G300, WST Award, Black Country Cert 160/80/2Mtrs,WAB=
, =
```

Rigs: T1154/R1155, WS No13,17,18,19,22,38,46,52,58,62,68,76,88, etc etc
Spy sets WS No119,121,123,128,RS-6,GRC-109,B2,Paraset,E90,Nova, etc etc
E/SK10,Fug10,UKwe,Tornb, FT-101E, FT-707.=

End of BOATANCHORS Digest 2387
